

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions,  
and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A peptide comprising an amino  
acid sequence SMAKEGV (SEQ ID NO: 8), wherein,  
said peptide antagonizes the influence of toxic or  
vitality-damaging noxae of neurodegenerative diseases, and  
said peptide is selected from the group that consists  
consisting of

~~DVFMKGLSMAKEGV (SEQ ID NO: 1)~~

VFMKGLSMAKEGV (SEQ ID NO: 2) ,

FMKGLSMAKEGV (SEQ ID NO: 3) ,

MKGLSMAKEGV (SEQ ID NO: 4) ,

KGLSMAKEGV (SEQ ID NO: 5) ,

GLSMAKEGV (SEQ ID NO: 6) ,

LSMAKEGV (SEQ ID NO: 7), and

SMAKEGV (SEQ ID NO: 8) .

~~MAKEGV (SEQ ID NO: 9)~~

~~AKEGV (SEQ ID NO: 10)~~

~~KEGV (SEQ ID NO: 11)~~

~~MDVFMKGLSMAKEG (SEQ ID NO: 12)~~

~~MDVFMKGLSMAKE (SEQ ID NO: 13)~~

~~MDVFMKGLSMAK (SEQ ID NO: 14)~~

~~MDVFMKGLSMA (SEQ ID NO: 15)~~

~~MDVFMKGLSM (SEQ ID NO: 16)~~

~~MDVFMKGLS (SEQ ID NO: 17)~~

~~MDVFMKGL (SEQ ID NO: 18)~~

~~MDVFMKC (SEQ ID NO: 19)~~

~~MDVFMK (SEQ ID NO: 20)~~

~~MDVFM (SEQ ID NO: 21)~~

~~MDVF (SEQ ID NO: 22)~~

~~DVFMKGLSMAKEG (SEQ ID NO: 23)~~

~~DVFMKGLSMAKE (SEQ ID NO: 24)~~

~~DVFMKGLSMAK (SEQ ID NO: 25)~~

~~DVFMKGLSMA (SEQ ID NO: 26)~~

~~DVFMKGLSM (SEQ ID NO: 27)~~

~~DVFMKGLS (SEQ ID NO: 28)~~

~~DVFMKGL (SEQ ID NO: 29)~~

~~DVFMKC (SEQ ID NO: 30)~~

~~DVFMK (SEQ ID NO: 31)~~

~~DVFM (SEQ ID NO: 32)~~

~~DVF (SEQ ID NO: 33)~~

~~GLSMAKEG (SEQ ID NO: 34)~~

~~GLSMAKE (SEQ ID NO: 35)~~

~~GLSMAK (SEQ ID NO: 36)~~

~~GLSMA (SEQ ID NO: 37)~~

~~GLSM (SEQ ID NO: 38)~~

~~GLS (SEQ ID NO: 39)~~

~~GL (SEQ ID NO: 40)~~

~~LSMAKEG (SEQ ID NO: 41)~~

~~LSMAKE (SEQ ID NO: 42)~~

~~LSMAK (SEQ ID NO: 43)~~

~~LSMA (SEQ ID NO: 44)~~

~~LSM (SEQ ID NO: 45)~~

~~LS (SEQ ID NO: 46)~~

2. (previously presented) The peptide according to claim 1, whereby the individual components are L-amino acids.

3. (previously presented) The peptide according to claim 1, whereby the individual amino acids are D-amino acids.

4. (previously presented) The peptide according to claim 1, in which the amino acid proline is substituted in the N-terminal position.

5. (previously presented) The peptide according to claim 1, in which the amino acid proline is substituted in the C-terminal position.

6. (previously presented) The peptide according to claim 1, in which the amino acid proline is substituted in the N-terminal position and in the C-terminal position.

7. (previously presented) The peptide according to claim 1, which are acetylated in the N-terminal position.

8. (previously presented) The peptide according to claim 1, which are amidated in the C-terminal position.

9. (previously presented) The peptide according to claim 7, which are acetylated in the N-terminal position and amidated in the C-terminal position.

10. (withdrawn) The peptide according to claim 1, characterized in that the amino acid valine (V) is replaced by the amino acid proline (P).

11. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of diseases in which the increased occurrence of free radicals plays a pathophysiological

role, ~~characterized by~~ comprising at least one peptide according to claim 1.

12. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of diseases with acute hypoxia or ischemia in an organ system of the body, ~~in particular in the central nervous system,~~ characterized by comprising at least one peptide according to claim 1.

13. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of Recklinghausen-Appelbaum diseases, ~~such as the Hallervorden-Spatz disease,~~ characterized by comprising at least one peptide according to claim 1.

14. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of neurodegenerative diseases, ~~in particular Alzheimer's disease, the Lewy Body variant of Alzheimer's disease, Parkinson's disease, the multisystem atrophy, the Lewy Body dementia or Huntington's chorea, and all states similar to these neurodegenerative diseases,~~ characterized by comprising at least one peptide according to claim 1 as an active ingredient.

15. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is prepared suitable for oral administration.

16. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for rectal administration.

17. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a

pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration by inhalation.

18. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for transdermal administration.

19. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for transmucosal administration.

20. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration via active ingredient-containing implants.

21. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for intracerebroventricular administration.

22. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration by injection.

23. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for transnasal administration.

24. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a

pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration by infusion.

25-26. (canceled)

27. (new) A peptide consisting of an amino acid sequence SMAKEGV (SEQ ID NO: 8), wherein the peptide antagonizes the influence of toxic or vitality-damaging noxae of neurodegenerative diseases.

28. (new) A composition comprising:

the peptide according to claim 27; and

a pharmaceutically acceptable vehicle selected from the group consisting of a vehicle for oral administration, a vehicle for rectal administration, a vehicle for inhalation, a vehicle for transdermal administration, a vehicle for transmucosal administration, for a vehicle for administration via active ingredient-containing implants, a vehicle for intracerebroventricular administration, a vehicle for injection, a vehicle for transnasal administration and a vehicle for administration by infusion.

29. (new) A peptide comprising:

an amino acid sequence selected from the group consisting of VFMKGLSMAKEGV (SEQ ID NO: 2), FMKGLSMAKEGV (SEQ ID NO: 3), MKGLSMAKEGV (SEQ ID NO: 4), KGLSMAKEGV (SEQ ID NO: 5), GLSMAKEGV (SEQ ID NO: 6), and LSMAKEGV (SEQ ID NO: 7) and SMAKEGV (SEQ ID NO: 8), wherein,

said peptide has less than 15 amino acids, and

said peptide is from the N-terminal sequence of beta-synuclein and antagonizes the influence of toxic or vitality-damaging noxae of neurodegenerative diseases.